

U.S.S.N. 10/028,795  
Amendment Dated: July 5, 2005  
Reply to Office Action dated April 6, 2005

Page 2 of 11

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings, of the claims in the application:

**Listing of Claims:**

1. (Currently amended) A data network management system for positioning data in a data network of nodes, the data network having a plurality of data servers, and the data network having a plurality of end users, the system including:
  - a main data storage means for storing the data sent to the end users in the data network;
  - demand monitoring means for monitoring end user requests for data;
  - a data positioning means, responsive to said demand monitoring means, for sending a copy of data stored in the main data storage means to a first one or more selected data servers selected from the plurality of servers based on specific predetermined criteria, the first each of said one or more data servers having a location proximate to at least one end user requesting the data from a node; and
  - a memory means for maintaining a data file containing a current location of the data sent to a first said selected data servers.
2. (Currently amended) A system as defined in claim 1, wherein the data is multimedia content and further comprising deletion means for deleting said copy from one of said selected data servers if the number of requests from end users who are proximate to said data server fail to satisfy a criteria.
3. (Currently amended) A system as defined in claim 42, ~~wherein the location is geographically proximate to at least one end user~~ further comprising redirection means for redirecting subsequent requests to a selected data server for requests from end users who are proximate to said selected data server.
4. (Currently amended) A system as defined in claim 43, wherein the first data server is selected based on the following predetermined criteria chosen from the group consisting of:
  - number of networks hubs in a preferred path between the first data server and one end user;

U.S.S.N. 10/028,795

Page 3 of 11

Amendment Dated: July 5, 2005

Reply to Office Action dated April 6, 2005

- speed of a link between the data network and one end user; and  
- amount of traffic along a preferred path between the first data server and one end user.

5. (Currently amended) A system as defined in claim 4, wherein ~~the first data server is a server which has multimedia files~~ said redirection means sends instructions to the end user to request the specific data from the selected data server.

6. (Currently amended) A method of positioning data in a data network, the data network having a main server and at least one additional data server, the data network having a plurality of end users, the method including the steps of:

- (a) selecting a first data server from the at least one additional data server based on specific predetermined criteria;
- (b) sending specific data from the main server to a said first data server;
- (c) receiving at the main server a first request for the specific data, the first request being sent by an end user to the main server;
- (d) selecting the first data server as being suitable for providing the specific data requested by the end user; and
- (e) sending instructions to the end user to request the specific data from the first data server.

7. (Currently amended) A method as defined in claim 6, ~~wherein the data is a server which has multimedia files~~ further comprising the steps of:

- (f) determining a level of demand for the specific data from the plurality of end users;
- (g) sending said specific data to one or more additional data servers based on said level of demand;

and wherein steps (d) and (e) may select from either said first data server or from said one or more additional data servers based on a criteria.

8. (Currently amended) A method as defined in claim 6, ~~wherein the first data server is a server which has multimedia~~ wherein step (f) comprises determining the level of

U.S.S.N. 10/028,795  
Amendment Dated: July 5, 2005  
Reply to Office Action dated April 6, 2005

Page 4 of 11

demand based on the number, frequency and location of requests files and wherein said method further comprises deleting said specific data from one or more of said servers, depending on said level of demand.

9. (Original) A method of positioning multimedia data in a data network, the data network having a main server and at least one multimedia server, and the data network having a plurality of end users, the method including the steps of:

- (a) identifying each earlier request for specific multimedia data by the plurality of end users and updating a count maintained of each earlier request by the plurality of end users;
- (b) selecting a first multimedia server from the at least one multimedia server based on specific predetermined criteria;
- (c) sending specific multimedia data from the main server to the first multimedia server, the specific multimedia data identified in at least one earlier request;
- (d) receiving at the main server a first request for the specific multimedia data, the first request being sent by a first end user to the main server;
- (e) selecting the first multimedia server as being suitable for providing the specific multimedia data requested by the first end user; and
- (f) sending instructions to the first end user to request the specific multimedia data from the first data server.

10. (Original) A method as defined in claim 9, further including the step of updating a data file stored in the main server that the specific multimedia data is stored in the first multimedia server.

11. (Original) A method as defined in claim 9, wherein at least one of the specific predetermined criteria is chosen from the group consisting of:

- geographical location of the first multimedia server relative to a geographical location of one of the plurality of end users requesting the specific multimedia data;
- number of network hubs in a preferred path between the first multimedia server and one of the plurality of end users;
- speed of a link between the data network and one of the plurality of end users; and

U.S.S.N. 10/028,795  
Amendment Dated: July 5, 2005  
Reply to Office Action dated April 8, 2005

Page 5 of 11

- amount of data traffic between the first multimedia server and one of the plurality of end users.

12. (Original) A method as defined in claim 9, wherein the end user is one of a plurality of multimedia servers within the data network.

13. (Original) A method as defined in claim 9, wherein the at least one multimedia server is any data storage and delivery server.

14. (Original) A method as defined in claim 9, wherein the specific multimedia data sent to the first multimedia server is a data copy of the specific multimedia data stored in the main server.

15. (Original) A method as defined in claim 9, wherein the data network has a plurality of main servers, and each main server sends specific data to at least one multimedia server.

16. (Original) A method as defined in claim 9, wherein the end user requesting the data in step (c) is a server which has multimedia files.

17. (Original) A method of positioning data in a data network, the data network having a main server and at least one multimedia server, the data network having a plurality of end users, the method including the steps of:

(a) selecting a first data server from the at least one data server based on a set of specific predetermined criteria;

(b) sending specific data from the main server to a first data server;

(c) receiving at least one request for specific data from the plurality of end users;

(d) determining a level of demand for the specific data based on a number of requests from the plurality of end users for the specific data;

(e) if the level of demand for the specific data is less than a first predetermined level, removing the specific data from the first multimedia server;

U.S.S.N. 10/028,795  
Amendment Dated: July 5, 2005  
Reply to Office Action dated April 6, 2005

Page 6 of 11

(f) if the level of demand for the specific data is greater than a second predetermined level, executing the steps of:

- (f1) selecting a second multimedia server based on at least a subset of specific predetermined criteria; and
- (f2) sending a copy of the specific data to the second multimedia server.

18. (Original) A method as defined in claim 17, wherein at least one of the specific predetermined criteria is chosen from the group consisting of:

- geographical location of the first multimedia server relative to a geographical location of one of the plurality of end users requesting the specific data;
- number of network hubs in a preferred path between the first multimedia server and one of the plurality of end users;
- speed of a link between the data network and one of the plurality of end users; and
- amount of data traffic between the first multimedia server and one of the plurality of end users.

19. (Original) A method as defined in claim 17, wherein the specific data is multimedia content.

20. (Original) A method as defined in claim 17, wherein the second multimedia server is selected based on economic constraints.

21. (Currently amended) A computer system serving as a data network management system for positioning data in a data network of nodes, the data network having a plurality of data servers, and the data network having a plurality of end users, the computer system including:

- a main data storage means for storing the data sent to the end users in the data network;
- demand monitoring means for monitoring end user requests for data;
- a data positioning means, responsive to said demand monitoring means, for sending a copy of data stored in the main data storage means to a first one or more selected data servers selected from the plurality of servers based on specific predetermined criteria,

U.S.S.N. 10/028,795  
Amendment Dated: July 5, 2005  
Reply to Office Action dated April 6, 2005

Page 7 of 11

~~the first~~ each of said one or more data servers having a location proximate to at least one end user requesting the data from a node; and

- a memory means for maintaining a data file containing a current location of the data sent to ~~a first~~ said selected data servers.

22. (Currently amended) A machine readable media containing computer readable and computer executable code to be executed by a data network, the data network having at least one additional data server, the data network having a plurality of end users, the code implementing a method including the steps of:

(a) selecting a first data server from the at least one additional data server based on specific predetermined criteria;

(b) sending specific data from the main server to a said first data server;

(c) receiving at the main server a first request for the specific data, the first request being sent by an end user to the main server;

(d) selecting the first data server as being suitable for providing the specific data requested by the end user; and

(e) sending instructions to the end user to request the specific data from the first data server.